AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently amended) A method for measuring properties of a target surface comprising natural tissue, said method comprising the steps of:

providing a probe, said probe having a pair of spaced apart electrodes in electrical communication with each other,

providing a voltage generator, said voltage generator being capable of supplying an increasing voltage between said electrodes,

providing a voltage meter, said voltage meter being capable of indicating the voltage between said electrodes,

placing said electrodes in contact with the target surface,

supplying [an] a monotonically increasing voltage from said voltage generator to said electrodes until current between said electrodes reaches a predetermined value, and

noting said voltage which occurs when said current reaches said predetermined value.

2. (Currently amended) ~~The method according to claim 1~~ A method for measuring properties of a target surface comprising natural tissue, said method comprising the steps of:

providing a probe, said probe having a pair of spaced apart electrodes in electrical communication with each other,

providing a voltage generator, said voltage generator being capable of supplying an increasing voltage between said electrodes,

providing a voltage meter, said voltage meter being capable of indicating the voltage between said electrodes,

placing said electrodes in contact with the target surface,

supplying an increasing voltage from said voltage generator to said electrodes until current between said electrodes reaches a predetermined value, and

noting said voltage which occurs when said current reaches said predetermined value, said method further comprising the step of monitoring the current between said electrodes in real time.

3. (Original) The method according to claim 1 wherein said predetermined current is from 0.1 to 3 microamperes.

4. (Original) The method according to claim 1 wherein said predetermined current is 1 microamperes.

5. (Previously presented) The method according to claim 1 wherein said voltage increases at a rate of 0.1 to 10 volts per second.

6. (Previously presented) The method according to claim 5 wherein said current nonlinearly increases from a baseline value to said predetermined value.

7. (Previously presented) The method according to claim 5 wherein said current monotonically increases from a baseline value to said predetermined value.

8. (Original) The method according to claim 7 wherein said baseline value is 0 volts.

9. (Original) The method according to claim 1 wherein said target surface comprises animal tissue.

10. (Original) The method according to claim 9 wherein said target surface comprises human tissue.

11. (Currently amended) A device for measuring the barrier properties of a target surface comprising natural tissue, said device comprising:

a probe, said probe having a pair of spaced apart electrodes in electrical communication with each other, said electrodes being spaced apart a distance of 3 to 10 mm, said electrodes being contactable with the skin of a subject,

a voltage generator, said voltage generator being capable of supplying an increasing voltage between said electrodes,

a voltage meter, said voltage meter being capable of indicating the voltage between said electrodes, whereby said voltage meter indicates the voltage between said electrodes when current therebetween reaches a predetermined value.

12. (Previously presented) A device according to claim 11 wherein each said electrode has a contact area of at least 0.01 square mm.

13. (Original) A device according to claim 12 wherein at least one said electrode has a contact area of at least 1 square mm.

14. (Canceled).

15. (Original) A device according to claim 11 having a first electrode and a second electrode, wherein said first electrode comprises a plurality discrete contact surfaces, said plurality of discrete contact surfaces being disposed about said second electrode in a radial pattern

16. (Original) A device according to claim 15 wherein said first electrode circumscribes said second electrode.

17. (Currently amended) A device according to claim [[14]] 11 wherein said voltage generator provides a voltage increasable from 0 to 30 volts.

18. (Original) A device according to claim 17 wherein said voltage is monotonically increasable at a rate of 0.1 to 10 volts per second.

19. (New) A device according to claim 11 comprising a DC voltage generator.